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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/685,336	10/14/2003	Robert D. Keefover	DKT 03016 (BWI-00087)	1254
68945 7590 05/01/2009 WARN, HOFFMANN, MILLER & OZGA, P.C. P.O. BOX 70098 ROCHESTER HILLS, MI 48307			EXAMINER AURORA, REENA	
			ART UNIT 2862	PAPER NUMBER
			MAIL DATE 05/01/2009	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

**Supplemental
Notice of Allowability**

Application No.

10/685,336

Examiner

Reena Aurora

Applicant(s)

KEEFOVER ET AL.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment received on 02/02/09.
2. ☒ The allowed claim(s) is/are 8 - 9, 12 - 13, 19 - 32, 34 - 40 and 42 - 47.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
- * Certified copies not received: ____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date ____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date ____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).**
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date ____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date ____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other ____. |

/Reena Aurora/
Primary Examiner, Art Unit 2862

DETAILED ACTION

This communication is in response to amendment received on 02/02/09.

Claims 8 – 9, 12 – 13, 19 – 32, 34 – 40 and 42 – 47 are presented for examination.

Allowable Subject Matter

Claims 8 – 9, 12 – 13, 19 – 32, 34 – 40 and 42 – 47 are allowed.

The following is an examiner's statement of reasons for allowance:

As to claims 8 and 23 – 26, the prior art fails to show a single sensor element; a first output circuit responsive to the sensor signal and providing a first output signal; a second output circuit responsive to the sensor signal and providing a second output signal; and a supervisor circuit, said supervisor circuit monitoring the sensor element and the output circuits, said supervisor circuit forcing the first or second output signals to change to a diagnostics range in response to an electrical failure with the sensor element or the output circuits and combinations thereof. These features taken together with the other limitations of the claim render the claims allowable over prior art.

As to claims 9 and 12 – 13, the prior art fails to show a single sensor element; shared circuits coupled to the sensor element; a first output circuit responsive to the sensor signal from the shared circuits; a second output circuit responsive to the sensor signal from the shared circuits; and a supervisor circuit, said supervisor circuit monitoring the sensor element, output circuits, and the shared circuits, said supervisor circuit forcing the first or second output signals to change to a diagnostics range in

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response to an electrical failure with the sensor element, the output circuits, or the shared circuits and combinations thereof. These features taken together with the other limitations of the claim render the claims allowable over prior art.

As to claims 19 and 27 - 31, the prior art fails to show a single sensor element; a first output circuit responsive to the sensor signal and providing a first output signal; a second output circuit responsive to the sensor signal and providing a second output signal; and, a supervisor circuit, said supervisor circuit monitoring the sensor element and the output circuits, said supervisor circuit forcing the first or second output signals to change to a diagnostics range in response to an electrical failure with the sensor element or the output circuits and combinations thereof. These features taken together with the other limitations of the claim render the claims allowable over prior art.

As to claims 20, 32 and 34 - 36, the prior art fails to show a single sensor element; a first output circuit responsive to the sensor signal and providing a first output signal; a second output circuit responsive to the sensor signal and providing a second output signal; a supervisor circuit, said supervisor circuit monitoring the sensor element and the output circuits, said supervisor circuits forcing the first or second output signals to change to a diagnostics range in response to an electrical failure with the sensor element or the output circuit and combinations thereof; and wherein the first output circuit and the second output circuit change the sensor signal in a different manner so that the first output signal and the second output signal change differently from each other during normal operation of the system. These features taken together with the other limitations of the claim render the claims allowable over prior art.

As to claims 21 and 37 - 39, the prior art fails to show sensing the parameter with a single sensor element; applying the sensor signal to a first output circuit; applying the sensor signal to a second output circuit, wherein the first and second output signals are two of multiple outputs from the sensor element; and, monitoring the operation of the output circuits and the single sensor element by a supervisor circuit, said supervisor circuit forcing the first output signal or the second output signal into a diagnostic range in response to an electrical failure with the sensor element or the output circuits and combinations thereof. These features taken together with the other limitations of the claim render the claims allowable over prior art.

As to claims 22, 40 and 42, the prior art fails to show applying the sensor signal to a first output circuit; monitoring the operation of the output circuits and the signal sensor element by a supervisor circuit, said supervisor circuit forcing the first output signal or the second output into a diagnostics range in response to an electrical failure with the sensor element of the output circuits and combinations thereof; and applying the sensor signal to a second output circuit, and the first output circuit and the second output circuit change the sensor signal in a different manner so that the first output signal and the second output signal change differently from each other during normal operation of the system. These features taken together with the other limitations of the claim render the claims allowable over prior art.

As to claims 43 - 45, the prior art fails to show a single sensor element for sensing the parameter; shared circuits coupled to the sensor element; a first output circuit responsive to the sensor signal from the shared circuits; a second output circuit

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responsive to the sensor signal from the shared circuits; a supervisor circuit, said supervisor circuit monitoring the sensor element and the output circuits, said supervisor circuits forcing the first or second output signals to change to a diagnostics range in response to an electrical failure with the sensor element or the output circuit and combinations thereof; and wherein the first output circuit and the second output circuit change the sensor signal in a different manner so that the first output signal and the second output signal change differently from each other during normal operation of the system. These features taken together with the other limitations of the claim render the claims allowable over prior art.

As to claim 46, the prior art fails to show a single sensor element; a first output circuit responsive to the sensor signal and providing a first output signal to said controller; a second output circuit responsive to the sensor signal and providing a second output signal to said controller; and a supervisor circuit, said supervisor circuit monitoring the sensor element and the output circuits, said supervisor circuit forcing the first or second output signals to change to a diagnostics range in response to an electrical failure with the sensor element or the output circuits and combinations thereof. These features taken together with the other limitations of the claim renders the claim allowable over prior art.

As to claim 47, the prior art fails to show sensing the parameter with a single sensor element; applying the sensor signal to a first output circuit; applying the sensor signal to a second output circuit, said second output circuit providing a second output signal to said controller indicative of the sensed condition; said supervisor circuit forcing

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the first output signal or the second output signal into a diagnostic range in response to an electrical failure with the sensor element or the output circuits and combinations thereof. These features taken together with the other limitations of the claim renders the claim allowable over prior art.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Reena Aurora whose telephone number is 571-272-2263. The examiner can normally be reached on Monday - Friday, 7:00 - 3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, P. Assouad can be reached on 571-272-2210. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Reena Aurora
/Reena Aurora/
Primary Examiner, Art Unit 2862